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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-58* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 02/16/2010 have been fully considered but they are not persuasive.

On page 16, with respect to claim 1, Applicant argues that the claim has been amended to read as the recordation is also from the optical medium, thus overcoming the teachings of Ohta.

In response, Examiner respectfully disagrees. At least, Ohta discloses data are read from the optical medium, <u>recorded to a buffer before playback of the data starts</u> *(see at least column 7, lines 36-38)*. After that, during playback, recordation of data from the optical medium into the buffer and playback of the data are continued concurrently to guarantee continuous reproduction by preventing buffer underflow from occurring *(see at least column 16, lines 33-37)*. Therefore, Ohta still discloses the amended features since the claim does recite a specific recordation path, that is, including the recordation destination medium that is distinguished from a playback buffer.

On pages 16-17, with respect to claim 25, Applicant argues that since both first and second operations are recited to include "reading data from the optical disc", Ohta does not disclose this feature.

In response, Examiner respectfully submits that Ohta discloses concurrent reproduction of <u>two different video signals</u>, each of which is recorded as a separate file and played back to separate video systems *(see column 16, lines 25-33)*. Therefore, Examiner respectfully submits that Official Notice is correctly taken that users in Ohta

can select different starting times for playing back each of the plurality of data streams according to their convenience. Thus, reading data for each of two the video signals from the optical discs would be initiated in response to user's selection at different times.

On page 17, with respect to claim 53, Applicant's arguments are found persuasive at least for the same reason as discussed in claim 1 above. Further, the current recitation of claim 53 does not necessarily require "recordation from the optical medium". Broadest interpretation allows one skilled in the art to understand that the claim recites the recordation of media (regardless of being conducted to or from the optical medium) and the playback of media from the optical medium. Therefore the recordation and playback steps recited claim 53 does not have the same cope as those recited in claim 1. Ohta discloses concurrent recordation of data to the optical medium and playback of data from the optical medium as described in the Office Action. Further, even if it had been amended to have same meaning as recited in claim 1, it still would not overcome the teachings of Ohta for the reason set forth in discussion of claim 1 above.

Applicant's arguments on page 18 with respect to claims 19-24 are not persuasive for the reason set forth in the discussion of claim 1 above.

Applicant's arguments on pages 18-19 with respect to claim 49 are not persuasive for the same reason set forth in the discussion of claim 25 above, that is, Ohta discloses concurrent reproduction of two different video signals recorded in separate files (video signal of CH1 and video signal of CH2) on two different video

systems (video system 1 and video system 2 respectively) *as described in column 16,*

lines 25-33. Also, the data streams recorded on the optical disc are interpreted as non-

real-time since they are played back from the optical disc or time shifted from real time,

which is interpreted as broadcasting time.

Applicant's arguments on pages 19-21, with respect to claims 3-4 and 47-48 are

not persuasive for the reasons set forth in the discussion of Ohta above.

With respect to Applicant's arguments on pages 21-22 regarding claim 50,

Examiner respectfully disagrees. First of all, as discussed earlier, Ohta discloses

reading different data streams recorded as separate files on optical media for playback

on different video systems. The starting times to play back these streams are to be

determined by users and are different depending on user's selection time as provided

by the Official Notice.

Kitamura discloses playback of a real-time data from a recording medium *(see at*

least Fig. 15, real-time data streams received from the antenna are played back using

the accumulating unit 22). One of ordinary skill in the art at the time the invention was

made would have been motivated to incorporate the teachings of Kitamura into the

system disclosed by Ohta in order to play back real-time data streams while they are

being broadcast without recording the whole stream first. The incorporated feature

would enhance the playback interface of the system.

Applicant's arguments on pages 22-23 with respect to claims 5-7, 15-16, 56-57

and 41- 42 are not persuasive for the reasons set forth in the discussion of Ohta above.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

.... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claim 51 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

Claim 51 recites "a computer-readable medium having stored thereon ... computer-executable components". However, the recited "computer-readable medium" could be reasonably interpreted as encompassing statutory media such as a "ROM", "RAM", "EPROM", "CD-ROM", etc, as well as non-statutory subject matter such as a magnetic, optical, electromagnetic, infrared, ... or propagation medium.

A "magnetic, optical, electromagnetic, infrared, ... or propagation medium" is neither a process nor a product, (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, a "magnetic, optical,

electromagnetic, infrared, ... or propagation medium" is a form of energy, in the

absence of any physical structure or tangible material.

The Examiner suggests amending the claim to recite the "computer-readable

storage medium" as "computer-readable non-transitory storage medium" to include

tangible computer readable media, while at the same time excluding the intangible

media such as signals, carrier waves, etc. Any amendment to the claim should be

commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 8-14, 17-18, 20-24, 53-55, and 58 are rejected under 35

U.S.C. 102(b) as being anticipated by Ohta et al. (US Patent 6,330,214 – hereinafter

Ohta).

Regarding claim 1, Ohta discloses a system that facilitates utilizing an optical

medium, comprising: a component that provides concurrent recordation of data from the

optical medium and playback from the optical medium, the playback starting at time (t_x)

and the recordation starting at time (t_y), wherein $t_x \neq t_y$ *(column 7, lines 36-38; column*

16, lines 33-37 – also see "Response to Arguments" above).

Regarding claim 2, Ohta also discloses recordation comprises recordation of a

non-real-time data stream *(column 7, lines 36-38; column 16, lines 33-37– wherein at*

least the streams of the video read from the optical medium is interpreted as a non-real-time data stream since they are not reproduced while being broadcast).

Regarding claim 8, Ohta also discloses the optical medium comprising audio data *(column 16, lines 25-33).*

Regarding claim 9, Ohta also discloses at least one buffer that holds information from playback of data from the medium *(column 12, lines 36-64; column 16, lines 20-25).*

Regarding claim 10, Ohta also discloses the at least one buffer has a minimum buffer capacity, that is a function of read speed and at least one seek time *(column 6, lines 15-40).*

Regarding claim 11, Ohta also discloses a buffer controller that controls creation and/or use of at least one buffer *(column 6, lines 15-40; "Integrated Buffer Memory 22" and "Memory Controller 27" of Fig. 1).*

Regarding claim 12, Ohta also discloses the buffer controller performs a utility-based analysis in connection with buffer access *(column 6, line 15 – column 8, line 31; column 16, lines 20-43).*

Regarding claim 13, Ohta also discloses the utility-based analysis is based at least in part on a probabilistic-based determination of cost associated with saving data to the at least one buffer *(column 6, line 15 – column 8, line 48).*

Regarding claim 14, Ohta also discloses, the utility-based analysis is based at least in part on a probabilistic-based determination of cost associated with retrieving data from the at least one buffer *(column 6, line 15 – column 8, line 48).*

Regarding claim 17, Ohta also discloses the at least one processor is further

programmed to provide concurrent playback of a plurality of data streams from the

optical medium *(Fig. 14A; column 16, lines 26-33)*.

Regarding claim 18, Ohta also discloses the data streams comprising audio data

(Fig. 14A; column 16, lines 25-33).

Regarding claim 20, see the teachings of Ohta as discussed in claim 1 above.

Further, Ohta also discloses the at least one processor is further programming to

provide concurrent recordation of a plurality of data streams in parallel from the optical

medium *(column 7, lines 36-38; column 16, lines 33-37 – also see "Response to*

Arguments" above).

Claim 21 is rejected for the same rationale as described in claims 19 and 20

above.

Regarding claim 22, Ohta also discloses the at least one processor is further

programmed to analyze a subset of the data streams and dynamically order reading of

respective data streams of the subset to mitigate stream break-up *(column 16, lines 25-*

43).

Regarding claim 23, Ohta also discloses the at least one processor is further

programmed to analyze a subset of the data streams, dynamically prognose potential

starvation of any of the data streams, and take remedial action to mitigate the starvation

(column 16, lines 25-43).

Regarding claim 24, Ohta also discloses the at least one processor is

programmed to prognose potential starvation using a probabilistic-based utility analysis

(column 6, line 15 – column 8, line 48; column 16, lines 25-43).

Regarding claim 53, Ohta discloses a recording system, comprising at least one

processor programmed to: provide concurrent recordation of and playback of respective

media from an optical medium, the playback starting at time (t_x) and the recordation

starting at time (t_y), wherein $t_x \neq t_y$ *(Fig. 2; column 2, lines 10-25; Figs.9- 10; Fig. 12;*

column 7, lines 7-38; column 11, lines 54 - column 12, line 55); and perform a utility-

based analysis in connection with the recordation and playback *(column 6, line 15 –*

column 8, line 31; column 16, lines 20-43).

Regarding claim 54, Ohta also discloses the at least one processor is

programmed to perform the utility-based analysis using a classifier *(column 6, line 15 –*

column 8, line 31; column 16, lines 20-43 – wherein at least it classifies between

recordation vs. reproduction or between recording buffer vs. reproducing buffer etc.).

Regarding claim 55, Ohta also discloses the at least one processor is further

programmed to inferring when to initiate recordation *(Figs. 7-8).*

Regarding claim 58, Ohta also discloses the at least one processor is

programmed to perform the utility-based analysis using at least one tool selected from

the group consisting of: at least one support vector machine (SVM), at least one naïve

Bayes model, at least one Bayesian network, at least one decision tree, at least one

Hidden Markov Model (HMM), at least one neural network, and at least one data fusion

engine *(column 6, line 15 – column 8, line 31 – wherein the AI component disclosed by*

Ohta involves a decision tree because the described process involves decision

branches – at least when to refill the buffers with data).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 19, 25, 27-40, 43-46, and 49 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Ohta as applied to claims 1-2, 8-14, 17-18, 20-24, 53-55,

and 58 above.

Regarding claim 19, see the teachings of Ohta as discussed in claim 17 above.

Further, Ohta also discloses the plurality of data streams comprising at least a first data

stream and a second data stream, such that the first data stream starts playing at t_x and

the second data stream starts playing at t_y *(column 16, lines 20-33)*. Ohta does not

explicitly disclose $t_x \neq t_y$.

Official Notice is taken that users in Ohta can select different starting times for

playing back each of the plurality of data streams according to their convenience.

Regarding claim 25, Ohta discloses a method of utilizing optical media, the

method comprising: initiating a first operation comprising reading data from the optical

media at time t_x *(column 16, lines 26-33 – wherein the first operation is the operation to*

play back a stream recorded in the first file); and initiating at least a second operation

comprising reading data from the optical media at time t_y while the first operation is

currently in progress *(column 16, lines 26-33 – wherein the second operation is the operation to play back another stream recorded in the second file separate from the first file)*. Ohta does not explicitly disclose t_x is not equal to t_y.

Official Notice is taken that users in Ohta can select different starting times for playing back each of the plurality of data streams according to their convenience.

Regarding claim 27, Ohta also discloses the at least a second operation comprising reading a real-time data stream or a non-real-time data stream *(column 16, lines 25-33)*.

Regarding claim 28, Ohta also discloses transferring the real-time data stream to a first buffer for temporary storage at a sufficient rate to allow a data stream associated with the second operation to transfer to a second buffer without interrupting the first operation *(column 6, line 15 – column 8, line 31; column 16, lines 20-48)*.

Regarding claim 29, Ohta also discloses before the second operation begins, determining whether a calculated cost of accessing the optical media a threshold and/or a calculated cost of retrieving data from the first buffer *(column 6, line 15 – column 8, line 48)*; and retrieving data from the first buffer during the second operation when the calculated cost of accessing the optical media exceeds the threshold and/or the calculated cost of retrieving data from the first buffer *(column 6, line 15 – column 8, line 48)*.

Regarding claim 30, Ohta also discloses verifying data transfer capabilities of an optical hardware device employed to run the optical media *(column 6, line 15 – column 8, line 48)*.

Regarding claim 31, Ohta also discloses verifying the data transfer capabilities

comprising performing at least one act selected from the group consisting of:

determining whether the optical hardware device is running in constant angular velocity

(CAV) mode, determining at least one of seek times and read performance across the

optical media for reading a non-real time data stream from the optical media, and

determining whether minimum buffer requirements are satisfied *(Fig. 6; column 6, line*

15 – column 8, line 48).

Regarding claim 32, Ohta also discloses determining read performance across

the optical media to facilitate ascertaining the optical hardware device's ability to read

the optical media comprising: reading at least a first amount of data from a first position

on the optical media such that an internal media cache is not concurrently caching the

first amount of data when the reading of the first amount of data starts *(column 7, lines*

30-63; Fig. 6 – wherein at least the first amount of data corresponds to 3n); and reading

at least a second amount of data from a second position on the optical media, wherein

the second position is separated from the first position by data representing an

increment of playback time that is sufficient for determining characteristic read

performances across the optical media; and reading data from other positions on the

optical media to determine read performances across substantially all of the optical

media *(column 7, lines 30-63; Fig. 6)*.

Regarding claim 33, Ohta also discloses the first amount of data being about 8

MB *(Fig. 6; wherein the amount of 3n of data is interpreted as about 8 MB)*.

Regarding claim 34, Ohta also discloses the increment of time being about 5 minutes *(Fig. 6 - wherein at least the skipped time corresponds to the time period between starting reading the first amount of data and start of phase 1 and is interpreted as about 5 minutes)*.

Regarding 35, Ohta also discloses the second amount of data is substantially equal in size to the first amount of data *(Fig. 6 – wherein each amount of data in "reproduction" periods is interpreted as substantially equal in size)*.

Regarding claim 36, Ohta also discloses the first amount of data is determined based at least in part upon an internal buffer size of the optical hardware device *(Fig. 6 – wherein the amount of data read in each "reproduction period" at least is determined to be less than the available capacity of the buffer)*.

Regarding claim 37, Ohta also discloses determining seek times across the optical media to facilitate ascertaining the optical hardware device's ability to seek on the optical media comprising: dividing the optical media into a number of sections, the number of sections comprising at least a first section and at least a second section, such that an internal cache of the optical hardware device does not pre-cache data from the second section when told to start reading from the first section *(Fig. 6; column 6, lines 59-65; column 7, lines 42-63)*; and for all pairs of sections comprising any two sections, ensuring that the optical hardware device is reading from the first section and then causing the optical hardware device to seek to the second section to gain characteristic seek performances across the optical media *(Fig. 6; column 6, lines 59-65; column 7, lines 42-63)*.

Regarding claim 38, Ohta also discloses all sections are of substantially equal size *(Fig. 6 – wherein the amounts of data read on both sides of the "head move" period are interpreted as having substantially equal size)*.

Regarding claim 39, Ohta also discloses a size of the sections is determined based at least in part upon the an internal buffer size of the optical hardware device *(Fig. 6 – wherein the amounts of data read on both sides of the "head move" period" is determined at least to be less than the available capacity of the buffer)*.

Regarding claim 40, Ohta also discloses ensuring that the optical hardware device is reading from the first section comprises reading an amount of data larger than an internal buffer size of the optical hardware device from a section other than the first and second sections *(Fig. 6 – wherein an internal buffer size is interpreted to 2n, the amount of the data read to fill up to the level of 3n is interpreted as the data from some section other the first and second sections, the first section corresponds to the section contain the data read in phase 1 while the second section is interpreted as corresponding to that containing the data read in phase 3)*.

Regarding claim 43, Ohta also discloses causing the optical hardware device to seek to the second section comprises using a SEEK command *(Fig. 6; column 7, lines 45-55)*.

Regarding claim 44, Ohta also discloses a size of the sections is about 5 minutes *(Fig. 6 - wherein at least the size of data in either "section" is interpreted as about 5 minutes)*.

Regarding claim 45, Ohta also discloses ensuring that the optical hardware device is reading from the second section comprises reading an amount of data larger than an internal buffer size of the optical hardware device from the first section *(Fig. 6 – wherein the internal buffer size is interpreted to 2n, the amount of the data read to fill up to the level of 4n is interpreted as the data from first section while the second section is interpreted as corresponding to the section that contains the data read in phase 3)*.

Regarding claim 46, Ohta also discloses the minimum buffer requirements being a function of read speed and seek times *(column 6, lines 15-40; column 7, lines 35-63)*.

Regarding claim 49, Ohta discloses a method of utilizing optical media, the method comprising: starting to read at least a first non-real-time data stream from the optical media at time t_x *(column 16, lines 20-33)*; and starting to read at least a second non-real time data stream from the optical media concurrently with the first non-real-time data stream at time t_y *(column 16, lines 20-33)*. Ohta does not explicitly disclose t_x is not equal to t_y.

Official Notice is taken that users in Ohta can select different starting times for playing back each of the plurality of data streams according to their convenience.

Claims 3-4, 26, 47-48, and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta as applied to claims 1-2, 8-14, 17-19, 20-25, 27-40, 39, 53-55, and 58 above, and further in view of Kitamura (US Patent 7,286,601 – hereinafter Kitamura).

Regarding claim 3, see the teachings of Ohta as discussed in claim 1 above. However, Ohta does not disclose playback comprising playback of a real-time data stream.

Kitamura discloses playback of a real-time data stream *(column 2, lines 58-64; Fig. 15 and column 7, lines 17-22; also see "Response to Arguments" above)*.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Kitamura into the system disclosed by Ohta in order to play back real-time data streams without recording the whole stream first. The incorporated feature would enhance the playback interface of the system.

Regarding claim 4, Kitamura also discloses at least one processor is programmed to dynamically adjust required data rates for the real-time data stream *(column 4, lines 22-38)*.

Regarding claim 26, Kitamura also discloses the first operation comprising reading a real-time data stream *(Fig. 15 and column 7, lines 17-22 - real-time data streams received from the antenna are played back using the accumulating unit 22)*.

Regarding claim 47, Ohta discloses a method of utilizing optical media, the method comprising: starting to read at least a first data stream from the optical media at time t_x; and starting to read at least a second data stream from the optical media concurrently with the first data stream at time t_y *(column 16, lines 20-33)*. Ohta does not explicitly disclose $t_x \neq t_y$ and the data streams to be real-time data streams.

Kitamura discloses playback a real-time data streams *(column 2, lines 58-64; also see "Response to Arguments" above)*.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Kitamura into the system disclosed by Ohta in order to play back real-time data streams without recording the whole stream first. The incorporated feature would enhance the playback interface of the system.

However, Ohta and Kitamura do not explicitly disclose $t_x \neq t_y$.

Official Notice is taken that users in Ohta can select different starting times for playing back each of the plurality of data streams according to their convenience.

Regarding claim 48, Ohta also disclose the first data stream being played via a first playback output and the second data stream being played via a second playback output *(column 16, lines 20-33)*.

Regarding claim 50, Ohta also discloses method for facilitating reading multiple concurrent data streams from optical media, the method comprising facilitating reading multiple concurrent data streams from optical media, the data packet comprising: transmitting a data packet between two or more computer processes, the data packet comprising information associated with reading a data stream from the optical media at time t_x and concurrently reading a non-real-time data stream from the optical media at time t_y *(column 16, lines 20-33)*.

Ohta does not explicitly disclose $t_x \neq t_y$ and the data streams to be real-time data streams.

Kitamura discloses playback a real-time data streams *(column 2, lines 58-64; also see "Response to Arguments" above)*.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Kitamura into the system disclosed by Ohta in order to play back real-time data streams without recording the whole stream first. The incorporated feature would enhance the playback interface of the system.

However, Ohta and Kitamura do not explicitly disclose $t_x \neq t_y$.

Official Notice is taken that users in Ohta can select different starting times for playing back each of the plurality of data streams according to their convenience.

Claim 51 is rejected for the same reason as discussed in claim 50 above.

Claim 52 is rejected for the same reason as discussed in claim 50 above.

Claims 5-7, 15-16, and 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta as applied to claims 1-2, 8-14, 17-19, 20-25, 27-40, 39, 53-55, and 58 above, and further in view of Osakabe (US Patent 6,894,961 – hereinafter Osakabe).

Regarding claim 5, see the teachings of Ohta as discussed in claim 1 above. However, Ohta does not disclose a verification component that determines data transfer capabilities of the optical medium.

Osakabe discloses a verification component that determines data transfer capabilities of the optical medium *(column 1, line 39 – column 2, line 30)*.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Osakabe into the system disclosed by Ohta in order to permit recording with minimized errors *(Osakabe: column 1, lines 44-49)*.

Regarding claim 6, Osakabe also discloses the data transfer capabilities comprising at least one parameter selected from the group consisting of minimum data transfer rate, read speed, burn speed, seek times and buffer size *(column 1, line 39 – column 2, line 30)*.

Regarding claim 7, Osakabe also discloses the optical medium comprising a compact disc or a digital video disc (DVD) *(column 5, lines 19-22)*.

Regarding claim 15, Osakabe also discloses the optical medium has a guaranteed minimum data transfer rate *(column 1, line 39 – column 2, line 30)*.

Regarding claim 16, Osakabe also discloses the guaranteed minimum data transfer rate is at least about 176 KBps *(column 1, line 39 – column 2, line 30; Table 4; column 8, lines 35-61 - wherein speed of 1X corresponds to 150 KBps - see paragraph [0003] of Green for support)*.

Claim 56 is rejected for the same reason as discussed in claim 5 above.

Claim 57 is rejected for the same reason as discussed in claim 6 above.

Claims 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta as applied to claims 1-2, 8-14, 17-40, 43-46, 49, 53-55, and 51-2, 8-14, 17-19, 20-25, 27-40, 39, 53-55, and 58 above, and further in view of King et al. (US 2002/0169996 – hereinafter King).

Regarding claim 41, see the teachings of Ohta as discussed in claim 37 above. However, Ohta does not disclose ensuring that the optical hardware device is reading from the first section comprises sending a READ I0 command with a force unit access (FUA) bit set to one.

King discloses sending a READ I0 command with a force unit access (FUA) bit set to one *([0013])*.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of King into the method disclosed by Ohta in order to provide reliability of data *(King: [0013])*.

Claim 42 is rejected for the same reason as discussed in claim 41 above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Hung Q Dang/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621